



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

*ml*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,032	01/29/2004	Alastair Michael Slater	1509-481	2436
22879	7590	04/24/2007	EXAMINER	
HEWLETT PACKARD COMPANY			WALTER, CRAIG E	
P O BOX 272400, 3404 E. HARMONY ROAD			ART UNIT	PAPER NUMBER
INTELLECTUAL PROPERTY ADMINISTRATION				
FORT COLLINS, CO 80527-2400			2188	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	04/24/2007	PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/766,032	SLATER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Craig E. Walter	2188	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 16 February 2007.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) 11-15, 18, 20, 26, 27, 29, 31-53, 60-64 and 66-68 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-10, 16, 17, 19, 21-25, 28, 30, 54-59 and 65 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1-10, 16, 17, 19, 21-25, 28, 30, 54-59 and 65 are pending in the Application.

Claims 11-15, 18, 20, 26, 27, 29, 31-53, 60-64 and 66-68 remain withdrawn pursuant to Applicant's election of Invention I on 24 October 2006 in response to the restriction requirement issued by Examiner on 3 October 2006.

Claim 69 is cancelled.

Claims 1-5, 7, 16, 17, 19, 21-25, 28, 30, 54-56 and 65 are amended.

Claims 1-10, 16, 17, 19, 21-25, 28, 30, 54-59 and 65 are rejected.

### ***Response to Amendment***

2. Applicant's amendments and arguments filed on 16 February 2007 in response to the office action mailed on 20 November 2006 have been fully considered, but they are not persuasive. Therefore, the rejections made in the previous office action are maintained, and restated below, with changes as needed to address the amendments.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-10, 16, 17, 19, 21-25, 28, 30, 54-59 and 65 are rejected under 35 U.S.C. 102(e) as being anticipated by Schmelzer (US PG Publication 2003/0037010 A1).

As for claim 1, Schmelzer teaches a network-attachable content-aware data storage device, comprising a non-volatile memory, a programmed set of rules, a network interface for enabling said device to be connected to a network and a control processor operable to evaluate selected said data content that is stored in said memory to establish whether there is a match between a characteristic of or a derivative of, said selected data content and a reference data content characteristic, or derivative, and to take an action in response to establishment of a said match in accordance with said programmed set of rules (referring to Fig. 1, data from a network (i.e. the Internet) is sent to a network appliance (104) via the data flow (102) and evaluated via a content recognizer (102). The data received is identified as a particular content type (i.e. .mp3) and compared to an archive of registered works. If a positive comparison occurs, transmission information is recorded in a content transmission recording device - paragraphs 0033 through 0034, all lines). It is worthy to note that the recognition and comparison servers include a control processor (see paragraph 0048, all lines), the network-attachable data storage device includes a network interface (i.e. the system of Fig. 3 is connected to the Internet), and that the data stream being compared originates from a non-volatile memory (referring again to Fig. 3, data is received from the Internet

(for example a peer-peer network – see paragraph 00014, all lines) which uses non-volatile memory (i.e. hard disks, CD-ROMs, etc.) to store sharable media (such as music, video, and photos)). Note, Schmelzer teaches a programmed set of rules for determining what is to be said action (if a match occurs, the processor will record the information in the content transmission medium as per paragraph 0034, all lines).

As for claim 2, Schmelzer teaches said action as including sending information relating to an interaction between an accessing party and the selected data content accessed by said accessing party, said processor being adapted to send said information to a party that is not said accessing party (referring again to Fig.3, not only is the information stored in the content transmission recording device as per paragraph 0034, all lines, it also may be forwarded to a client (352) to report back to the owner of the intellectual property as per paragraphs 0068 through 0069, all lines).

As for claim 3, Schmelzer teaches the control processor as being further operable to perform an evaluation of newly received data content putatively to be added to said memory of the data storage device prior to said newly received data content being added to said memory (rather than being limited to network segments of communication for monitoring the data at points of transaction, Schmelzer's system is capable of monitoring uploads and downloads of the data (rather than waiting for the data to be stored at its final destination) as taught in paragraph 0033, all lines).

As for claims 4 and 5, Schmelzer teaches said memory as comprising file-serving memory and further including a content evaluating buffer memory for storing the newly received data content prior to and whilst the newly received data content is evaluated

(again the memory is the memory used within the peer-sharing network. Schmelzer further teaches buffering the incoming stream into a data buffer which can be used to continuously buffer the data as the stream is being transmitted (Fig. 4, element 212) in paragraph 0051, all lines).

As for claims 6 and 7, Schmelzer teaches a library of data content characteristics or derivatives, wherein said data content characteristics comprise an identity characteristic to identify known data content as being known, and wherein said identity characteristic is from the group consisting of: (i) a signature derived from said known data content; (ii) a fingerprint derived from said known data content (referring to paragraph 0054, all lines – a database is used to store comparison data which can include a fingerprint or signature (paragraph 0151, all lines)).

As for claim 8, Schmelzer teaches wherein said memory has stored thereon a data content-related parameter correlation, said correlation linking content-related parameters with equivalent known data content characteristics or derivatives, said processor being adapted to use said parameters for determining said action (paragraphs 0033 through 0034, Schmelzer is capable of reading the data from the network and establishes its content characteristics prior to comparison (i.e. file extension type)).

As for claim 9, Schmelzer teaches said parameters as being controllable by a third party via the network (paragraph 0033, all lines – in addition to the element 116 of Fig. 1, the network is connected to a third party (i.e. router) which may be used for content recognition).

As for claim 10, Schmelzer teaches said processor as being configured to enable third party mediated control of said action (monitoring can be performed via multiple network recognition systems and is not limited to a single (i.e. second party) media recognition system – paragraphs 0063 through 0064, all lines).

As for claim 16, Schmelzer further teaches wherein said processor is operable to evaluate the selected data content by producing a signature or fingerprint using said selected data content and comparing said produced signature or fingerprint with the data content characteristics relating to data content whose identity is already known (referring to paragraph 0054, all lines – a database is used to store comparison data which can include a fingerprint or signature (paragraph 0151, all lines)).

As for claim 17 Schmelzer further teaches wherein said action comprises one selected from the group consisting of:

(i) not deleting said selected data content and (ii) deleting said selected data content and (iii) communicating with a third party and (iv) informing a third party that said selected data content has been stored, or that an attempt to store said selected data content was made (once a match occurs the data content is stored in a content transmission recording device as per paragraph 0034, all lines).

As for claim 19, a device of claim 2, wherein said interaction comprises the accessing party performing at least one of:

(i) providing information into said device and (ii) receiving information from said device (referring again to Fig.3, not only is the information stored in the

content transmission recording device as per paragraph 0034, all lines, it also may be forwarded to a client (352) to report back to the owner of the intellectual property as per paragraphs 0068 through 0069, all lines).

As for claim 21, a device of claim 1 further comprising a parameter which interacts with said rules to assist in controlling what is said action (the generated reference fingerprints are used during the comparison to ascertain if match occurs, resulting in recording of transmission information in the content transmission recording device as per paragraph 0034, all lines).

As for claim 22, a device as in claim 21, wherein said parameter comprises a cost of read access or of write access for a particular data content stored in said non-volatile memory (paragraph 0072, all lines – attributes (such as file size) are extracted from the media content. The cost of read/write access in a storage system is directly related to size of the file being transmitted/stored).

As for claim 23, a device as in claim 1, wherein said processor is operable to ascertain an identity of an accessing party which has made a request to perform at least one of (a) store data content in said non-volatile memory and (b) read data content from said non-volatile memory (the system is capable of recording the identity of the source of the data content (paragraph 0036, all lines – source IP address)).

As for claim 24, a device as in claim 23, wherein said processor is operable to provide at least one of (a) the ascertained identity and (b) information derived from that identity to an external party (referring again to Fig.3, not only is the information stored in the content transmission recording device as per paragraph 0034, all lines, it also may

be forwarded to a client (352) to report back to the owner of the intellectual property as per paragraphs 0068 through 0069, all lines. Additionally, the system is capable of recording the identity of the source of the data content (paragraph 0036, all lines – source IP address)).

As for claim 25, a device as in claim 24, wherein said action comprises generating or augmenting an account related to the ascertained identity and/or an identity of said storage device and wherein said account comprises at least one of:

(i) a financial account for request for payment and (ii) an information account for analysis. (Fig. 9 and paragraph 0084, all lines disclose maintaining (and augmenting) a database to identify particular media content and further providing solicitation for payment to provide copyright protection).

As for claim 28, a device according to claim 22 wherein said parameter comprises at least one of:

(i) a price to be charged associated with said particular data content and (ii) a price to be charged to said device or an owner of said device and (iii) a price to be charged to a party requesting storage of said particular data content, or to an entity associated with the requesting party and (iv) a limitation upon the use of said particular data content (a solicitation for payment is issued (i.e. imposing a limitation to use the content) during the revenue generating step as per paragraph 0085, all lines).

As for claim 30, a device as in claim 1, wherein said processor is operable to interact with a party external to said device and said action comprises at least one of:

(i) communicating with a party external to said storage device; and (ii) providing information to a third party external to said device that is not the person requesting content to be stored and (iii) issuing a request for payment to a party and (iv) providing content-storage or use-related information to a rights owner who is recorded on said storage device as owning rights in content that has been identified and (v) providing content-storage or use information to a third party that is not the owner of the rights to which the information relates (a solicitation for payment is issued during the revenue generating step as per paragraph 0085, all lines). Additionally, referring again to Fig.3, not only is the information stored in the content transmission recording device as per paragraph 0034, all lines, it also may be forwarded to a client (352) to report back to the owner of the intellectual property as per paragraphs 0068 through 0069, all lines. Additionally, the system is capable of recording the identity of the source of the data content (paragraph 0036, all lines – source IP address).

As for claim 54, Schmelzer teaches wherein said memory is adapted to store a plurality of data content entities having data content (the memory used by the users of the peer-peer network contain the data content);

wherein content-related parameters are adapted to be available to said processor, said content-related parameters being associated with corresponding data content entities the data being extracted from the memories in the peer-peer network contain file extensions which are extracted by the system (paragraph 0033, all lines); and

wherein said set of rules is adapted to use those of said content-related parameters which relate to a selected data content entity for determining what is to be said action when said selected data content is established as having a characteristic or derivative that matches a known characteristic or derivative (if a match occurs, the processor will record the information in the content transmission medium as per paragraph 0034, all lines).

As for claim 55, Schmelzer further teaches said processor as being programmed for enabling a third party external of said device and connected to said network to set at least one of said content-related parameters (monitoring can be performed via multiple network recognition systems and is not limited to a single (i.e. second party) media recognition system – paragraphs 0063 through 0064, all lines).

As for claim 56, Schmelzer teaches said content-related parameters have an associated content-related parameter control authority (parameter control authority is based off of the file type (i.e. media extension) and said processor is programmed to determine that said third party is authorized to control said at least one of said content-related parameters prior to allowing said third party to set said at least one of said content-related parameters (the processor determines that each of the multiple recognition systems (as depicted in Fig. 8) are authorized to control the parameters prior to setting the parameters (i.e. establishing the file type))).

As for claim 57, Schmelzer further teaches a user identity and wherein a data content entity access concordance is adapted to exist, said concordance being arranged for influencing which data content entities in said memory can be accessed by

Art Unit: 2188

which users, said processor being programmed to use said user-identity and said data content entity access concordance for determining whether or not a user is granted access to a data content entity stored in said memory – (paragraphs 0054 through 0055, all lines, the system can determine if a data stream is authorized based on information related to the user of the data stream).

As for claim 58, Schmelzer teaches a user identity for enabling said processor to identify a user who requests at least one of read and write access to said memory; and wherein said set of rules is adapted to use the user identity as a factor in determining what is to be said action (paragraphs 0054 through 0055, all lines, the system can determine if a data stream is authorized based on information related to the user of the data stream).

As for claim 59, Schmelzer teaches said processor as being arranged so (a) said characteristic of said selected data content is established as matching a known characteristic by processing said selected data content to produce a representative fingerprint or signature and (b) said representative fingerprint or signature is compared with a library of known fingerprints or signatures representative of known data content (referring to paragraph 0054, all lines – a database is used to store comparison data which can include a fingerprint or signature (paragraph 0151, all lines)).

As for claim 65, Schmelzer teaches reference data content characteristic means for having or obtaining reference data content characteristics representative of known data content, and content identifying means for evaluating the selected data content against said reference data content characteristics from said reference characteristic

means for determining whether a characteristic of said selected data content matches any of the reference data content characteristics representative of the known data content (paragraphs 0033 through 0034, all lines – the data can be classified by content type (i.e. file extension), and subsequently compared with stored references); and

    said processor being programmed to take said action in response to said content identifying means establishing that the characteristic of said selected data content matches one of the reference data content characteristics representative of the known data content (same line reference, the processor will ensure that the information is recorded in the content transmission recording device).

#### ***Response to Arguments***

4.    Applicant's amendments and arguments with respect to claim 1 have been fully considered, but they are not persuasive.

    As for claim 1, Applicant asserts, "Schmelzer... does no fairly teach or disclose ... a network-attachable data storage device. Rather, it is a monitored network data center 121 that is configured to monitor, not store, network data." Applicant supports this contention by stating that the previously cited non-volatile memory do not belong to the network appliance 104, or monitored network data center 121 which Examiner allegedly cited to read on the claimed network-attachable data storage device.

    This argument however is not persuasive. First, Examiner disagrees with Applicant's characterization of the mapping set forth in the previous Office action of Schmelzer's network-attachable data storage device against the claimed invention.

Applicant has assumed, without basis, that Examiner intended element 121 (including elements 116 and 104) to *exclusively* read on the network-attachable data storage device, however Examiner maintains that such a narrow interpretation is not consistent with the previous Office action. In fact, it is clear from paragraph 0011 of Examiner's previous Office action that the claimed network-attachable data storage device includes elements shown (and not shown as per the description in the specification) of Fig. 1 and Fig. 3. More specifically, the rejection reads, "the network-attachable data storage device includes a network interface (i.e. the system of Fig. 3 is connected to the Internet), and that the data stream being compared originates from a non-volatile memory (referring again to Fig. 3, data is received from the Internet (for example a peer-peer network - see paragraph 00014, all lines) which uses non-volatile memory (i.e. hard disks, CD-ROMs, etc.) to store sharable media (such as music, video, and photos))". It is clear from this language that Examiner intended to map the entire CPS system (including Fig. 1 and Fig. 3 (including the elements not shown in the drawing but referenced in the text – i.e. servers with local storage capacity)) to Applicant's claimed network-attachable data storage device – see also paragraph 0048, all lines. Further, Applicant originally claimed "a non-volatile memory" as being part of the network-attachable data storage device, and it is further well known that a system with a non-volatile memory may inherently be defined as a storage system. Examiner originally mapped portions of Schmelzer teaching's *including* a non-volatile memory to read on claim 1 which recites a network-attachable data storage device. Based on this mapping, it is reasonable to construe that Examiner intended each and every cited

element within the rejection of claim 1 to be considered part of the “network-attachable data storage device” as recited in the preamble of the instant claim. This reasonable assumption is in stark contrast to Applicant’s very narrow, and baseless interpretation of Schmelzer’s teachings, which limits it to only element 121 of Fig. 1. Such an assumption is made without sufficient basis or justification in light of Examiner’s previous rejection; hence it is not persuasive.

Lastly, Applicant asserts that amended claim 1 recites, “a network-attachable data storage device that contains a programmed set of rules as previously recited in original claim 54n [sic]”. Applicant further contends that the claim as amended now recites a content-aware data storage device, which contrasts with Examiner’s mapping to the network appliance 104. Applicant contends that the network appliance does perform the programmed set of rules; but rather it is the media analysis system 126 (not the network appliance 104), where Applicant concedes those rules might be present.

This argument is not persuasive. More specifically, Examiner maintains (as per the discussion of Applicant’s previous argument) that previous Office action did not initially map the network appliance 104 to Applicant’s claimed network-attachable data storage device. Rather, the network-attachable data storage device as taught by Schmelzer includes the *entire CPS system* (including Fig. 1 and Fig. 3 (including the elements not shown in the drawing but referenced in the text – i.e. servers with local storage capacity)). Schmelzer does in fact teach a programmed set of rules within his network-attachable data storage device, namely as recited in paragraph 0034, all lines which help to carry out the salient functions of the invention depending on the

occurrence of a match. Applicant concedes that Schmelzer teaches rules governing the system's function depending on a match by way element 126 of Fig. 1, and Examiner maintains that Schmelzer's network-attachable data storage device comprises at a minimum, all elements of Fig. 1 (including element 126) and Fig. 3 per the discussion *supra*.

Applicant's assertion that all claims depending on claim 1 are allowable for further incorporating allegedly allowable subject matter or claim 1 is not persuasive, as Examiner maintains that claim 1 is anticipated by Schmelzer per the rejections and arguments set forth *supra*. Applicant's assertion that all dependant claims are allowable on their own merits, and that such an assertion will be "apparent to the Examiner upon reviewing these claims" is not persuasive as Examiner has thoroughly reviewed the claims, and has concluded that Schmelzer anticipates each dependant claim per the rejections and arguments set forth *supra*.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

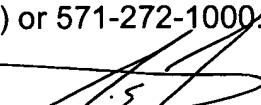
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig E. Walter whose telephone number is (571) 272-8154. The examiner can normally be reached on 8:30a - 5:00p M-F.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Craig E Walter  
Examiner  
Art Unit 2188

CEW

  
HYUNG SONGH  
SUPERVISORY PATENT EXAMINER

4-23-07